



AMENDMENTS TO THE CLAIMS

Please cancel Claim 6

Please make the following amendments to the claims as shown

*Clean Version Of The Amended Claims filed 25 August 2004 Using The Original
Numbers*

1. (Previously and currently amended) A bone stabilizing system, having a rigidizing plate with holes and two or more bone screws, for the purpose of fixing one bone segment, within a bone column, with respect to one or more other bone segments or an implant within the bone column, the stabilizing system containing:
 - (a) (Previously and Currently amended) the bone screws, with a head portion having a driving feature which is engaged by a driving tool, a plate shank portion, a threaded portion, and a bone shank portion extending through the plate holes and ~~a machined and threaded holes in the bone~~ into the underlying bone ~~for a distance of 1mm or greater~~, and
 - (b) the rigidizing plate, with holes to receive the bone screws for the purpose of retaining the plate to the bone segment, and
 - (c) the bone screw's plate shank portion, is configured and sized to make an interference fit within the plate holes and the screw's bone shank portion is configured and sized to make an interference fit within ~~the bone shank portion, of the machined holes in the bone~~ segments.
2. (previously canceled)
3. (previously and currently amended) The bone stabilizing system of claim 1, wherein the interference fit portion of the bone screws contain one or more locking tapers which extend into the bone ~~and engage mating tapers in the bone.~~
4. (previously and currently amended) The bone stabilizing system of claim 3, wherein a portion of the screw shanks engage the plate holes which are tapered to engage mating tapers of a portion of the bone screw shanks.
5. (previously canceled)
6. (currently canceled) The bone stabilizing system of claim 1, wherein the screws are fixed to the plate and the bone holes with an adhesive material.

Claims 7 – 11 (previously canceled).

12. (Previously amended) The bone stabilizing system of claim 1, wherein the screws have self tapping screw threads.

13. (previously canceled)

14. (previously and currently amended) A bone stabilizing method, using plates with holes and bone screws for the purpose of fixing one bone segment with respect to one or more other bone segments or implants within a bone column comprising the following steps:

(a) providing the system components of claim 4, and

(b) machining holes in the bone segments for the purpose of retaining the engagement of the bone screws and retaining fixation of the plate to the bones, and

(c) placing the screws, with a shank portion and a head portion configured and sized to be affixed by an interference fit within the plate hole and the bone ~~and also affixed within a portion of the machined~~

15 – 26 (previously canceled)

27 (previously added) A bone fixation device using a plate with holes and screws, where the screws have a threaded portion and an unthreaded portion of a shank extending through the plate holes and extending into ~~machined holes in~~ the underlying bone with an interference fit, for the purpose of fixing one bone segment with respect to one or more other bone segments or with respect to an implant.

28. (previously added) The fixation device of claim 27 where the unthread portion of the shank is tapered.



RESPONSE TO THE CLAIMS AMENDMENTS

Claim Rejections - 35 USC § 112

Claim 6 is rejected as failing to comply with the enablement requirement. The specification makes no mention of adhesive material.

The applicant may claim a method of drilling, tapping or otherwise machining holes in bone, the applicant may not, in a claim directed to an apparatus, positively recite "machined and threaded holes in the bone."

CLEAN COPY OF THE CLAIMS

1. A bone stabilizing system, having a rigidizing plate with holes and two or more bone screws, for the purpose of fixing one bone segment, within a bone column, with respect to one or more other bone segments or an implant within the bone column, the stabilizing system containing:

(a) the bone screws, with a head portion having a driving feature which is engaged by a driving tool, a plate shank portion, a threaded portion, and a bone shank portion extending through the plate holes and into the underlying bone, and

(b) the rigidizing plate, with holes to receive the bone screws for the purpose of retaining the plate to the bone segment, and

(c) the bone screw's plate shank portion, is configured and sized to make an interference fit within the plate holes and the screw's bone shank portion is configured and sized to make an interference fit within the bone segments.

3. The bone stabilizing system of claim 1, wherein the interference fit portion of the bone screws contain one or more locking tapers which extend into the bone

4. The bone stabilizing system of claim 3, wherein a portion of the screw shanks engage the plate holes which are tapered to engage mating tapers of a portion of the bone screw shanks.

12. The bone stabilizing system of claim 1, wherein the screws have self tapping screw threads.

14. (previously and currently amended)A bone stabilizing method, using plates with holes and bone screws for the purpose of fixing one bone segment with respect to one or more other bone segments or implants within a bone column comprising the following steps:

(a) providing the system components of claim 4, and

(b) machining holes in the bone segments for the purpose of retaining the engagement of the bone screws and retaining fixation of the plate to the bones, and

(c) placing the screws, with a shank portion and a head portion configured and sized to be affixed by an interference fit within the plate hole and in the bone.

27 (previously added) A bone fixation device using a plate with holes and screws, where the screws have a threaded portion and an unthreaded portion of a shank extending through the plate holes and extending into ~~machined holes in~~ the underlying bone with an interference fit, for the purpose of fixing one bone segment with respect to one or more other bone segments or with respect to an implant.

28. (previously added) The fixation device of claim 27 where the unthread portion of the shank is tapered.